

## CLAIMS

What is claimed is:

1. A method of producing triploid watermelon fruit comprising:
  - a) planting triploid plants and diploid short vine pollinator plants in one or more rows;
  - b) allowing said plants to mature and develop fruit; and
  - c) harvesting said fruit.
2. Watermelon fruit produced by the method of claim 1.
3. The method of claim 1, wherein said diploid short vine pollinator plant is planted in a ratio of diploid to triploid plants of between about 1:1 to about 1:10.
4. The method of claim 3, wherein said diploid plant is planted in a ratio of about one diploid plant to about two triploid plants.
5. The method of claim 3, wherein said diploid plant is planted in a ratio of about one diploid plant to about three triploid plants.
6. The method of claim 1, wherein said diploid and triploid plants are planted in the same row in the field.
7. The method of claim 1, wherein said diploid plants are planted in separate rows from said triploid plants.
8. A diploid short vine pollinator line designated 6741, a sample of said seed having been deposited under ATCC Accession No. \_\_\_\_\_.
9. A watermelon plant, or parts thereof, produced by growing the seed of claim 8.
10. Pollen of the plant of claim 9.
11. An ovule of the plant of claim 9.
12. A tissue culture of regenerable cells of a watermelon plant of line 6741, wherein the tissue regenerates plants capable of expressing essentially all the morphological and physiological characteristics of the line 6741.
13. A tissue culture according to claim 12, the cells or protoplasts being from a tissue selected from the group consisting of leaves, pollen, embryos, roots, flowers, and rind.

10025819-132601

14. A watermelon plant regenerated from the tissue culture of claim 12, capable of expressing all the morphological and physiological characteristics of line 6741.

15. A method for producing a hybrid watermelon seed comprising crossing a first parent watermelon plant with a second parent watermelon plant and harvesting the resultant hybrid watermelon seed, wherein said first or second parent watermelon plant is the watermelon plant of claim 9.

16. A hybrid watermelon seed produced by the method of claim 15.

17. A hybrid watermelon plant, or parts thereof, produced by growing said hybrid watermelon seed of claim 16.

18. Watermelon seed produced by growing said hybrid watermelon plant of claim 17.

19. The watermelon plant, or parts thereof, of claim 9, wherein the plant or parts thereof have been transformed so that its genetic material contains one or more transgenes operably linked to one or more regulatory elements.

20. A method for developing a watermelon plant in a watermelon plant breeding program using plant breeding techniques which include employing a watermelon plant, or its parts, as a source of plant breeding material comprising: using the watermelon plant, or its parts, of claim 9 as a source of said breeding material and wherein plant breeding techniques are selected from the group consisting of: recurrent selection, backcrossing, pedigree breeding, mass selection, restriction fragment length polymorphism enhanced selection, genetic marker enhanced selection, and transformation.

21. A watermelon plant, or parts thereof, produced by the method of claim 20.

22. The watermelon plant of claim 9, further comprising a single gene conversion.

23. The single gene conversion watermelon plant of claim 22, wherein the gene confers a characteristic selected from the group consisting of: herbicide resistance, insect resistance, and resistance to bacterial, fungal, or viral disease.